

1. This action is responsive to the amendment filed on July 20, 2009.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/20/09 has been entered.
3. Claims 1-11, 13-17, 19-21 and 23-35 are presented for examination.
4. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Claim Rejections - 35 USC § 103

5. Claims 1, 3-5, 7-10, 13-15, 17, 28 and 30-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lalonde et al, US Patent Application Publication 2004/0068542 (hereinafter Lalonde), and Kirsch, US Patent 7,206,814 (hereinafter Kirsch) in view of Wang, US Patent Application Publication 2008/0040439 (hereinafter Wang).
6. As per claims 1 and 35, Lalonde teaches the invention substantially as claimed, comprising: executing instructions stored in a computer readable storage medium to determine

the domain from which the message is purported to be sent (Fig. 6; [0040]); executing instructions stored in a computer readable storage medium to determine an IP address from the message, the IP address corresponding to a device which the message was relayed at some point in transmission of the message (Fig. 6; [0040]); executing instructions stored in a computer readable storage medium to associate the domain with the IP address (Fig. 6; [0031] and [0040]); and executing instructions stored in a computer readable storage medium to classify the message according to the domain and IP address ([0039] and [0040]).

7. Lalonde does not specifically teach create an IP address and domain pair. Kirsch teaches executing instructions stored in a computer readable storage medium to associate the domain with the IP address to create an IP address and domain pair (col. 6, lines 10-40); executing instructions stored in a computer readable storage medium to classify the message according to the IP address and domain pair based on one or more classification variables associated with the IP address and domain pair (col. 8, lines 31-56); and executing instructions stored in a computer readable storage medium to assign a score to the IP address and domain pair, the score comprising a ratio of a first classification variable to a second classification variable (col. 12, lines 1-30; col. 11, lines 24-60).

8. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde and Kirsch because Kirsch's teaching of IP address and domain pair would increase the security of Lalonde's system by creating a more trustworthy identifier to indicate an actual sender of the message.

9. Lalonde and Kirsch do not teach variable decaying with time. Wang teaches the one or more classification variables decaying with time ([0046], [0047] and claims 5 and 22).

10. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch and Wang because Wang's teaching of variables decaying with time would increase the security of their system by allowing their system to determine whether to accept or reject messages on the basis of the classification of the sender.

11. As per claim 3, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Kirsch further teach comparing the IP address and domain pair with a related IP address and domain pair (col. 8, lines 11-35; col. 9, lines 26-28).

12. As per claim 4, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde further teach wherein classifying includes checking classifications of other messages associated with the same domain (i.e., checking the blacklist) ([0042]) and different IP addresses ([0039]).

13. As per claim 5 Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde further teach wherein a plurality of IP addresses is associated with the domain ([0039]).

14. As per claim 7, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Kirsch further teaches wherein the IP address is a boundary IP address (col. 7, line 30).

15. As per claim 8, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde further teach wherein the IP address is preconfigured ([0039]).

16. As per claims 9 and 13, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Although Lalonde teaches wherein the IP address is preconfigured ([0039]), however, Lalonde, Kirsch and Wang do not specifically teaches including wherein the IP address is preconfigured to be one hop from a gateway IP address. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include IP address preconfigured to be one hop or any hop from a gateway IP address because by doing so it would increase the user control by allowing configuration according to the user's design choice.

17. As per claim 10, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde further teach wherein the IP address is learned ([0039]) (learned from the DNS).

18. As per claim 14, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Kirsch further teach wherein determining the domain from which the message is purported to be sent includes identifying the stated sender domain associated with the message (col. 7, lines 55-64).

19. As per claim 15, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Kirsch further teaches wherein the domain is a domain associated with a boundary IP address (col. 7, lines 30, 49-54).

20. As per claim 17, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde and Kirsch further teach wherein classifying includes forming a score based on previous classifications made to the IP address and domain pair (see Lalonde, [0038] and see Kirsch, col. 12, lines 1-30).

21. As per claim 28, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Kirsch further teaches providing a classification based on the IP address and domain pair as input to another classifier (col. 8, lines 17-62).

22. As per claim 30, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde further teach wherein classifying includes classifying the message based on the IP address ([0039]).

23. As per claim 31, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde further teach wherein classifying includes classifying the message based on the domain ([0038]).

24. As per claim 32, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde further teach wherein classifying includes classifying the message based on the domain and determining that the message was forged ([0038]).

25. As per claim 33, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde and Kirsch further teach wherein classifying includes determining a score for the IP address (see Lalonde, [0038]; see Kirsch, col. 12, lines 1-30).

26. As per claim 34, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde and Kirsch further teach wherein classifying includes determining a score for the domain (see Lalonde, [0038]; see Kirsch, col. 12, lines 1-30).

27. Claims 2, 6, 11, 16, 19-21 and 23-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Lalonde, Kirsch and Wang as applied to claim 1 above, and further in view of Murray et al, U.S. Patent 7,366,761 (hereinafter Murray).

28. As per claim 2, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not teach overriding a white list. Murray teaches

executing instructions stored in a computer readable storage medium to override a white list based on the classification (col. 18, lines 38-40).

29. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because Murray's teaching of overriding a white list based on the classification would increase the effectiveness of their system by filtering unwanted e-mails based on sender information.

30. As per claim 6, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not teach the IP address is associated with the domain. Murray teaches wherein the IP address is associated with the domain (col. 7, line 65- col. 8, line 4).

31. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because Murray's teaching of the IP address is associated with the domain would increase the effectiveness of their system by allowing identification of the IP address is associated with the domain in order to filter unwanted e-mails based on sender information.

32. As per claim 11, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not teach including the IP address is adaptively determined. Murray teaches wherein the IP address is adaptively determined (col.3, lines 25-27).

33. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because Murray's teaching of the IP address is adaptively determined would increase the effectiveness of their system by allowing determination of the IP address in order to filter unwanted e-mails based on sender information.

34. As per claim 16, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not teach consulting a white list. Murray teaches wherein classifying includes consulting a white list (col. 4, line 66-col. 5, line 6).

35. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because Murray's teaching of consulting a white list would increase the effectiveness of their system by allowing identification of the e-mails in order to classify wanted or unwanted e-mails based on sender information.

36. As per claim 19, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not teach determining a spam ratio. Murray teaches determining a spam ratio (col. 9, lines 8-13).

37. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because Murray's teaching of determining a spam ratio would increase the effectiveness of their system by allowing identification of unwanted e-mails based on spam ratio.

38. As per claim 20, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not specifically teach a spam rate. Murray teaches determining a spam rate (col. 10, lines 53-65).

39. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because Murray's teaching of determining a spam rate would increase the effectiveness of their system by allowing identification of unwanted e-mails based on spam rate.

40. As per claim 21, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not specifically teach a spam rate. Murray teaches determining an estimated instantaneous spam rate (col. 10, lines 53-65; col. 11, lines 24-27).

41. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because

Murray's teaching of determining a spam rate would increase the effectiveness of their system by allowing identification of unwanted e-mails based on spam rate.

42. As per claim 23, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not teach giving a classification weight relative to another classification. Murray teaches wherein classifying includes giving a classification variable greater weight relative to another classification variable (col. 9, lines 20-31).

43. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because Murray's teaching of giving a classification greater weight relative to another classification would increase the effectiveness of their system by allowing unwanted e-mails to be accurately identified based on sender's reputation.

44. As per claim 24, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not teach giving a classification weight relative to a computer classification. Murray teaches wherein classifying includes giving a classification variable associated with user greater weight relative to a classification variable associated with computer classification (col. 8, lines 44-50; col. 9, lines 20-31).

45. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because

Murray's teaching of giving a classification greater weight relative to a computer classification would increase the effectiveness of their system by allowing unwanted e-mails to be accurately identified based on complied sender's reputation.

46. As per claim 25, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not teach giving weight of a good classification. Murray teaches wherein classifying includes giving an indeterminate classification a fraction of the weight of a good classification (col. 9, lines 20-31).

47. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because Murray's teaching of giving weight to a good classification would increase the effectiveness of their system by allowing unwanted e-mails to be accurately identified based on sender's good reputation.

48. As per claims 26 and 27, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Lalonde, Kirsch and Wang do not specifically teach consulting a table indexed by IP address and domain. Murray teaches wherein classifying includes consulting a table indexed by IP address and domain wherein each cell includes information about previous classifications (col. 9, lines 32-40).

49. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Murray because Murray's teaching of consulting a table of IP address and domain would increase the effectiveness of their system by allowing unwanted e-mails to be accurately identified based on sender's information.

50. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lalonde, Kirsch and Wang as applied to claim 1 above, and further in view of Appleman, U.S. Patent Application Publication 2005/0076240 (hereinafter Appleman).

51. As per claim 29, Lalonde, Kirsch and Wang teach the invention substantially as claimed in claim 1 above. Although Lalonde teaches providing the IP address and domain classification as input ([0038] and [0039]), however, Lalonde, Kirsch and Wang do not specifically teach a Bayesian classifier. Appleman teach providing classification based on the IP address and domain as input to a Bayesian classifier ([0058]).

52. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Lalonde, Kirsch, Wang and Appleman because Appleman's teaching of providing the IP address and domain classification as input to a Bayesian classifier would increase the effectiveness of their system by allowing unwanted e-mails to be accurately identified based on sender's information.

53. Applicant's arguments with respect to claims 1-11, 13-17, 19-21 and 23-35 have been considered but they are not persuasive.

54. In the remarks, applicant argued that:

(1) The prior arts of record fail to teach classifying the message according to the IP address and domain pair based on one or more classification variables associated with the IP address and domain pair.

55. In response to point (1), Kirsch teaches identifying the actual sender based on the IP address and domain pair (col. 6, lines 10-40). Kirsch further teaches classifying message as wanted or unwanted message based on the one or more classification variable (e.g., information about the actual sender, statistics, etc.) of the identified actual sender (col. 8, lines 31-56). This means classification of message must be according to the identified actual sender (i.e., IP address and domain pair) in order to identify information of the actual sender for classifying the message. Also, the classification is based on variable associated with the identified actual sender (i.e., IP address and domain pair).

CONCLUSION

56. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C Lee whose telephone

number is (571)272-3967. The examiner can normally be reached on 8 AM TO 5:30 PM Monday to Thursday and every other Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571) 272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip C Lee/

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